

sending the requested content to the client system.

3. A method as recited in claim 2 wherein the front-end indicator is added to a hypertext transfer protocol User Agent header.

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2 4. A method as recited in claim 2 wherein the redirect response identifies a list of
3 back-end servers where the content is stored.

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5 5. A method as recited in claim 4 wherein the list of back-end servers is identified
6 in a hypertext transfer protocol 305 Use Proxy response from the particular back-end server.

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8 6. A method as recited in claim 4 further comprising the acts of:

9 requesting authentication credentials from the client system; and

10 receiving proper authentication credentials from the client system.

11
12 7. A method as recited in claim 6 further comprising the acts of:

13 receiving an authentication token that is associated with the authentication
14 credentials; and

15 using the authentication token as a key for a hash operation to identify the
16 redirect back-end server from the list of back-end servers identified in the redirect
17 response.

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19 8. A method as recited in claim 1 wherein the redirect response identifies a single
20 back-end server where the content is stored.

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22 9. A method as recited in claim 8 wherein the single back-end server is identified in
23 either a hypertext transfer protocol 301 Moved Permanently or 302 Moved Temporarily
24 response from the particular server.

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10. A method as recited in claim 1, further comprising the acts of:
receiving the requested content from the redirect back-end server; and
sending the requested content to the client system.

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1 11. In a computerized system that includes a client system, a front-end server, and
2 one or more back-end servers, all interconnected with a communication link, wherein the
3 client system periodically accesses content stored on one or more back-end servers through
4 the front-end server, and wherein over time the content may be moved from one back-end
5 server to another or may appear to be stored at a back-end server when in fact the content is
6 not stored at that back-end server, a method of redirecting a request for the content directed
7 to a particular back-end server when the content is not stored at the particular back-end
8 server, the method comprising the back-end server performing the acts of:

9 receiving a content request from the client system through the front-end
10 server, the content request including a front-end indicator in order to indicate that the
11 front-end server is making the content request on behalf of the client system;

12 examining the content request for the front-end indicator;

13 the front-end indicator having been present in the content request, creating a
14 redirect response to the content request that includes a list of one or more redirect
15 back-end servers where the content is stored; and

16 sending the redirect response to the front-end server so that the front-end
17 server can redirect the request to the one or more redirect back-end servers.

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19 12. A method as recited in claim 11 wherein the front-end indicator is added to a
20 hypertext transfer protocol User Agent header.

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22 13. A method as recited in claim 11 wherein the list of one or more redirect back-end
23 servers is identified in a hypertext transfer protocol 305 Use Proxy response from the
24 particular back-end server.

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1 14. In a computerized system that includes a client system, a front-end server, and
2 one or more back-end servers, all interconnected with a communication link, wherein the
3 client system periodically accesses content stored on the one or more back-end servers
4 through the front-end server, and wherein over time the content may be moved from one
5 back-end server to another or may appear to be stored at a back-end server when in fact the
6 content is not stored at that back-end server, a method of transparently redirecting a request
7 for the content such that the client system is unaware of the redirection, the method
8 comprising the front-end server performing:

9 an act of receiving a request for the content from the client system;

10 a step for querying a particular back-end server for the requested content,
11 wherein the response to the query identifies one or more other back-end servers
12 where the content is stored;

13 a step for, automatically and without user intervention, retrieving the
14 requested content from a redirect back-end server, the redirect back-end server being
15 one of the one or more other back-end servers identified in the redirect response; and

16 an act of sending the requested content to the client system.

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18 15. A method as recited in claim 14 further comprising a step for authenticating the
19 client system.

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21 16. A method as recited in claim 15 wherein the query response identifies a list of
22 back-end servers where the content is stored, the method further comprising a step for
23 distributing the request to the redirect back-end server based on the client system
24 authentication.

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17. A method as recited in claim 14 wherein the query response identifies a single
back-end servers where the content is stored.

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1 18. In a computerized system that includes a client system, a front-end server, and
2 one or more back-end servers, all interconnected with a communication link, wherein the
3 client system periodically accesses content stored on the one or more back-end servers
4 through the front-end server, and wherein over time the content may be moved from one
5 back-end server to another or may appear to be stored at a back-end server when in fact the
6 content is not stored at that back-end server, a method of transparently redirecting a request
7 for the content such that the client system is unaware of the redirection, comprising the acts
8 of:

9 the front-end server receiving a request for the content from the client
10 system;

11 the front-end server directing the request to a particular back-end server;

12 the particular back-end server receiving the request from the front-end server;

13 the particular back-end server creating a redirect response that identifies one
14 or more other back-end servers where the content is stored; and

15 the front-end server automatically and without client system intervention,
16 redirecting the request to a redirect back-end server, the redirect back-end server
17 being one of the one or more other back-end servers identified in the redirect
18 response.

19
20 19. A method as recited in claim 18 further comprising the act of the front-end server
21 adding a front-end indicator to the request in order to indicate to the particular back-end
22 server that the front-end server is making the request on the behalf of the client system.
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1 20. A method as recited in claim 19 wherein the redirect response from the particular
2 back-end server identifies a list of back-end servers where the content is stored.

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4 21. A method as recited in claim 20 further comprising the acts of:

5 the front-end server requesting authentication credentials from the client
6 system; and

7 the front-end server receiving proper authentication credentials from the
8 client system.

9
10 22. A method as recited in claim 21 further comprising the acts of:

11 the front-end server receiving an authentication token that is associated with
12 the authentication credentials; and

13 the front-end server using the authentication token as a key for a hash
14 operation to identify the redirect back-end server from the list of back-end servers
15 identified in the redirect response.

16
17 23. A method as recited in claim 18 wherein the redirect response from the particular
18 back-end server identifies a single back-end server where the content is stored.

19
20 24. A method as recited in claim 18, further comprising the acts of:

21 the front-end server receiving the requested content from the redirect
22 back-end server; and

23 the front-end server sending the requested content to the client
24 system.

25. In a computerized system that includes a client system, a front-end server, and one or more back-end servers, all interconnected with a communication link, wherein the client system periodically accesses content stored on the one or more back-end servers through the front-end server, and wherein over time the content may be moved from one back-end server to another or may appear to be stored at a back-end server when in fact the content is not stored at that back-end server, a computer program product for implementing a method of transparently redirecting a request for the content such that the client system is unaware of the redirection, comprising:

a computer readable medium for carrying machine-executable instructions for implementing the method; and

wherein said method is comprised of machine-executable instructions for the front-end server performing the acts of:

receiving a request for the content from the client system;

directing the request to a particular back-end server;

receiving from the particular back-end server, a redirect response identifying one or more other back-end servers where the content is stored;

automatically and without client system intervention, redirecting the request to a redirect back-end server, the redirect back-end server being one of the one or more other back-end servers identified in the redirect response;

receiving the requested content from the redirect back-end server; and

sending the requested content to the client system.

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1 31. In a computerized system that includes a client system, a front-end server, and
2 one or more back-end servers, all interconnected with a communication link, wherein the
3 client system periodically accesses content stored on one or more back-end servers through
4 the front-end server, and wherein over time the content may be moved from one back-end
5 server to another or may appear to be stored at a back-end server when in fact the content is
6 not stored at that back-end server, a computer program product for implementing a method
7 of redirecting a request for the content directed to a particular back-end server when the
8 content is not stored at the particular back-end server, comprising:

9 a computer readable medium for carrying machine-executable instructions
10 for implementing the method; and

11 wherein said method is comprised of machine-executable instructions for the
12 particular back-end server performing the acts of:

13 receiving a request for the content from the client system through the
14 front-end server, the request including a front-end indicator in order to
15 indicate that the front-end server is making the request on behalf of the client
16 system;

17 examining the content request for the front-end indicator;

18 the front-end indicator having been present in the content request,
19 creating a redirect response to the request that includes a list of one or more
20 redirect back-end servers where the content is stored; and

21 sending the redirect response to the front-end server so that the
22 front-end server can redirect the request to the one or more redirect back-end
23 servers.
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